IN THE CLAIMS

Please enter the following rewritten claims:

30. (Previously Amended) An apparatus comprising:

a receiver configured to wirelessly receive a received signal; and

a transmitter configured to transmit a transmit signal corresponding to the received signal to a mobile unit while the transmitter has a motion relative to Earth along a predetermined path and in accordance with an anticipated motion of the mobile unit, wherein an actual motion of the mobile unit is independent of the motion of the transmitter.

31. (Previously Amended) An apparatus in accordance with claim 30 wherein the predetermined path has a contour corresponding to a roadway contour and the anticipated motion of the mobile unit is on the roadway.

32. (Previously Amended) An apparatus in accordance with claim 31, wherein the transmitter is further configured to travel on a conveyor device along the predetermined path.

33. (Previously Amended) An apparatus in accordance with claim 32, wherein the received signal is received from a fixed radio port.

34. (Previously Amended) An apparatus comprising:

a receiver configured to receive a received signal from a mobile unit while the receiver has a motion relative to Earth along a predetermined path and in accordance with an anticipated motion of the mobile unit, wherein an actual motion of the mobile unit is independent of the motion of the receiver; and

a transmitter configured to wirelessly transmit a transmit signal corresponding to the received signal to at least one fixed port.

35. (Previously Amended) An apparatus in accordance with claim 34 wherein the predetermined path has a contour corresponding to a roadway contour and the anticipated motion of the mobile unit is on the roadway.

36. (Previously Amended) An apparatus in accordance with claim 35, wherein the receiver is further configured to travel on a conveyor device along the predetermined path.

Claims 37 - 48 (Previously Cancelled).

49. (Previously Amended) A movable base station configured to establish a communication link between a fixed port and mobile unit while the movable base station has a motion relative to Earth along a predetermined path and in accordance with an anticipated motion of the mobile unit, the communication link comprising a wireless communication link between the movable base station and the fixed port, wherein an actual motion of the mobile unit is independent of the motion of the movable base station.

50. (Original) A movable base station in accordance with claim 49, wherein the motion of the movable base station is based, at least in part, on a speed of the mobile unit.

51. (Previously Amended) A movable base station in accordance with claim 50, wherein the motion of the movable base station is based, at least in part, on a speed of another mobile unit.

52. (Previously Amended) A movable base station in accordance with claim 50, wherein the motion of the movable base station is based, at least in part, on a received signal strength of a signal transmitted by the mobile unit.

53. (Previously Amended) A movable base station in accordance with claim 52, wherein the motion of the movable base station is based, at least in part, on another received signal strength of another signal transmitted by the another mobile unit.

54. (Previously Amended) A movable base station configured to have a motion relative to a fixed port along a predetermined path and in accordance with an anticipated motion of a mobile unit, comprising:

a first radio interface configured to establish a first wireless communication link between the movable base station and the mobile unit; and

a second radio interface configured to establish a second wireless communication link between the movable base station and the fixed port, wherein an actual motion of the mobile unit is independent of the motion of the movable base station.

55. (Previously Amended): A movable base station in accordance with claim 54, wherein the first communication link and the second communication are established within a frequency band having a lower limit greater than 300 megahertz.

56. (Original): A movable base station in accordance with claim 55, wherein the frequency band has a lower limit of 300 megahertz.

57. (Previously Amended) A movable base station in accordance with claim 55, wherein the frequency band is an optical frequency band.

58. (Previously Amended) A movable base station in accordance with claim 55, wherein the frequency band is a millimeter wave frequency band.

59. (Previously Amended) A movable base station in accordance with claim 58, wherein the frequency band comprises a frequency spectrum from 50 gigahertz to 70 gigahertz.

60. (Previously Amended) A movable base station in accordance with claim 58, wherein the frequency band is an oxygen absorption frequency band.

61. (Previously Amended) A movable base station in accordance with claim 54, wherein the predetermined path has a contour corresponding to a roadway contour and the anticipated motion of the mobile unit is on the roadway.

62. (Original) A movable base station in accordance with claim 61, wherein the movable base station is further adapted to travel on a conveyor device along the predetermined path.

63. (Previously Amended) An apparatus adapted to move in accordance with a movement of a mobile unit moving relative to a plurality of fixed radio ports, the apparatus comprising:

a receiver adapted to receive a plurality of signals, each of the plurality of signals transmitted from each of the plurality of fixed radio ports within a frequency band having a lower limit greater than 300 megahertz;

a transmitter adapted to transmit, within the frequency band, a resultant signal to the mobile unit in accordance with at least one of the plurality of signals; and

a processor adapted to maximize an amount of transferred information to the mobile unit by evaluating a quality of each of the plurality of signals transmitted from the plurality of fixed radio ports.

64. (Original) An apparatus in accordance with claim 63, wherein the frequency band has a lower limit of 300 megahertz.

65. (Previously Amended) An apparatus in accordance with claim 63, wherein the frequency band is an optical frequency band.

66. (Previously Amended) An apparatus in accordance with claim 63, wherein the frequency band is a millimeter wave frequency band.

67. (Previously Amended) An apparatus in accordance with claim 66, wherein the frequency band comprises a frequency spectrum from 50 gigahertz to 70 gigahertz.

68. (Previously Amended) An apparatus in accordance with claim 66, wherein the frequency band is an oxygen absorption frequency band.

69. (Previously Amended) An apparatus in accordance with claim 63, wherein the processor is further adapted to determine a best fixed radio port of the plurality of fixed radio ports, the best fixed radio port enabling the maximization of the amount of transferred information to the mobile unit.

70. (Original) An apparatus in accordance with claim 69, wherein the transmitter is further adapted to transmit the resultant signal in accordance with the signal transmitted from the best fixed radio port.

71. (Original) An apparatus in accordance with claim 70, wherein the processor is further adapted to determine a plurality of best fixed radio ports and to combine a group of signals of the plurality of signals to produce the resultant signal, the group of signals transmitted from the plurality of best fixed radio ports.

72. (Original) An apparatus in accordance with claim 71, wherein the processor is further adapted to combine the group of signals by synchronizing the group of signals to produce a plurality of synchronized signals and combining the plurality of synchronized signals in accordance with the quality of each of the plurality of synchronized signals to produce the resultant signal.

73. (Original) An apparatus in accordance with claim 63, wherein the amount of information transferred to the mobile unit is maximized by transmitting the information through at least one of the plurality of fixed radio ports, the at least one fixed radio port providing a greatest quality communication link between the at least one fixed radio port and the mobile unit in relation to other communication links between other fixed radio ports of the plurality of fixed radio ports and the mobile unit.

74. (Original) An apparatus in accordance with claim 73, wherein the greatest quality communication link comprises:

a first wireless communication link between the at least one fixed radio port and the receiver; and

a second wireless communication link between the transmitter and the mobile unit.

75. (Previously Amended) An apparatus adapted to move in accordance with a movement of a plurality of mobile units moving relative to a plurality of fixed radio ports at a velocity greater than a relative velocity of movement between each of the mobile units of the plurality of mobile units, the apparatus comprising:

a first radio interface adapted to communicate with the plurality of fixed radio ports in a frequency band;

a second radio interface adapted to communicate with the plurality of mobile units in the frequency bandwidth, the frequency having a lower limit greater than 300 megahertz; and

a processor adapted to establish a communication link between the plurality of mobile units and at least one of the plurality of fixed radio ports based on a plurality of signal quality indicators, each of the signal quality indicators corresponding to each of a plurality of transmitted signals transmitted from the plurality of fixed radio ports.

76. (Original) An apparatus in accordance with claim 75, wherein the frequency band has a lower limit of 300 megahertz.

77. (Previously Amended) An apparatus in accordance with claim 75, wherein the frequency band is an optical frequency band.

78. (Previously Amended) An apparatus in accordance with claim 75, wherein the frequency band is a millimeter wave frequency band.

79. (Previously Amended) An apparatus in accordance with claim 78, wherein the frequency band comprises a frequency spectrum from 50 gigahertz to 70 gigahertz.

80. (Previously Amended) An apparatus in accordance with claim 78, wherein the frequency band is an oxygen absorption frequency band.

81. (Previously Amended) An apparatus in accordance with claim 75, wherein the processor is further adapted to establish a second communication link between the plurality of mobile units and at least a second fixed radio port of the plurality of fixed radio ports based on the plurality of signal quality indicators.

82. (Original): An apparatus in accordance with claim 81, wherein the apparatus is further adapted to move along a predetermined path between the plurality of mobile units and the plurality of fixed radio ports.

83-88. (Previously Cancelled).

89. (Previously Amended) A method of transmitting a signal to a mobile unit having an anticipated motion relative to Earth, the method comprising the steps of:

wirelessly receiving a received signal;

controlling a motion of a transmitter along a predetermined path in accordance with the anticipated motion of the mobile unit, wherein the motion of the mobile unit is independent of the motion of the transmitter; and

transmitting a transmit signal corresponding to the received signal to the mobile unit.

90. (Previously Amended) A method in accordance with claim 89, wherein the step of controlling comprises the steps of:

moving the transmitter along a conveying device deposited along the predetermined path; and

adjusting a speed of the transmitter in accordance with the motion of the mobile unit.

91. (Original) A method in accordance with claim 90, wherein the step of adjusting comprises the steps of:

observing a relative motion between the mobile unit and the transmitter; and

adjusting the speed of the transmitter to minimize the relative motion between the mobile unit and the transmitter.

92. (Original) A method in accordance with claim 91, wherein the step of moving the transmitter comprises the steps of:

moving the transmitter next to a roadway;

calculating an average speed of a plurality of mobile units traveling along the roadway; and

adjusting the speed of the transmitter in accordance with the average speed.

93. (Previously Amended) A method of wirelessly transmitting a transmit signal corresponding to a received signal transmitted from a mobile unit having an anticipated motion relative to Earth, the method comprising the steps of:

controlling a motion of a receiver along a predetermined path in accordance with the anticipated motion of the mobile unit, wherein the motion of the mobile unit is independent of the motion of the receiver;

receiving the received signal at the receiver; and

wirelessly transmitting the transmit signal from a transmitter connected to the receiver.

94. (Original) A method in accordance with claim 93, wherein the step of controlling comprises the steps of:

moving the receiver along a conveying device deposited along the predetermined path; and

adjusting a speed of the receiver in accordance with the motion of the mobile unit.

95. (Original) A method in accordance with claim 94, wherein the step of adjusting comprises the steps of:

observing a relative motion between the mobile unit and the receiver; and

adjusting the speed of the receiver to minimize the relative motion between the mobile unit and the receiver.

96. (Original) A method in accordance with claim 95, wherein the step of moving the receiver comprises the steps of:

moving the receiver next to a roadway;

calculating an average speed of a plurality of mobile units traveling along the roadway; and

adjusting the speed of the receiver in accordance with the average speed.

97. (Previously Amended) A method of providing a communication link between a communication network and a mobile unit having a motion relative to a plurality of fixed ports, wherein the plurality of fixed ports are communicatively coupled to the communication network, the method comprising the steps of:

moving a movable base station in accordance with the motion of the mobile unit;

receiving a plurality of signals at the movable base station, each of the plurality of signals transmitted from each of the plurality of fixed radio ports within a frequency band having a lower limit greater than 300 megahertz;

transmitting, within the frequency band, a resultant signal to the mobile unit in accordance with at least one of the plurality of signals; and

maximizing an amount of transferred information to the mobile unit by evaluating a quality of each of the plurality of signals transmitted from the plurality of fixed radio ports.

98. (Original) An apparatus in accordance with claim 97, wherein the frequency band has a lower limit of 300 megahertz.

99. (Previously Amended) An apparatus in accordance with claim 97, wherein the frequency band is an optical frequency band.

100. (Previously Amended) An apparatus in accordance with claim 97, wherein the frequency band is a millimeter wave frequency band.

101. (Previously Amended) An apparatus in accordance with claim 97, wherein the frequency band comprises a frequency spectrum from 50 gigahertz to 70 gigahertz.

102. (Previously Amended) An apparatus in accordance with claim 97, wherein the frequency band is an oxygen absorption frequency band.

103. (Original): A method of providing a communication connection between a communication network and a plurality of mobile units having a motion relative to a plurality of fixed ports, wherein the plurality of fixed ports are communicatively coupled to the communication network, the method comprising the steps of:

establishing a first communication link between the plurality of mobile units and a first fixed port of the plurality of fixed ports through a movable base station having a motion in accordance with the motion of the mobile units; and

simultaneously handing off the plurality of mobile units to a second fixed port of the plurality fixed ports.

104. (Original) A method in accordance with claim 103, wherein the step of simultaneously handing off the plurality of mobile units comprises the steps of:

combining a first incoming signal transmitted from the first fixed port and a second incoming signal transmitted from the second fixed port to produce a resultant signal; and

transmitting the resultant signal to the plurality of mobile units from the movable base station.

105. (Original) A method in accordance with claim 104, wherein the step of combining comprises the steps of:

determining a first quality of the first signal;

determining a second quality of the second signal; and

adding the first signal to the second signal in accordance with the first quality and the second quality.

106. (Original) A method in accordance with claim 105, wherein the step of adding comprises the step of minimizing a contribution of the first signal to the resultant signal by ignoring the first signal.

Claims 107 – 112 (Previously Cancelled).

113. (Previously Amended) A communication system comprising:

a first transceiver configured to provide a moving communication cell to a mobile unit while the moving communication cell has a motion relative to Earth along a predetermined path and in accordance with an anticipated motion of the mobile unit, wherein an actual motion of the mobile unit is independent of the motion of the moving communication cell; and

a second transceiver connected to the first transceiver and configured to wirelessly exchange signals with at least one fixed port corresponding to the communication cell.

114. (Previously Added): A communication system in accordance with claim 113 wherein the predetermined path has a contour corresponding to a roadway contour of a roadway and the anticipated motion of the mobile unit is along the roadway.

115. (Previously Added) A communication system in accordance with claim 114, comprising a moving base station adapted to provide the moving communication cell.

116. (Previously Added) A communication system in accordance with claim 115, further comprising a plurality of fixed ports disposed along the anticipated path of the mobile unit, the plurality of fixed ports in communication with the moving base station.

117. (Previously Added) A communication system in accordance with claim 116, further comprising a gateway connected to the plurality of fixed ports.

118. (Currently Cancelled)

119. (Previously Amended): A method of providing communication services to a mobile unit, the method comprising:

providing a moving communication cell to a mobile unit while the moving communication cell has a motion relative to Earth along a predetermined path and in accordance with an anticipated motion of the mobile unit, wherein an actual motion of the mobile unit is independent of the motion of the cell; and

wirelessly exchanging signals with at least one fixed port corresponding to the communication cell.

120. (Previously Added) A method in accordance with claim 119, wherein the predetermined path has a contour corresponding to a roadway contour of a roadway and the anticipated motion of the mobile unit is along the roadway.

121. (Previously Added) A method in accordance with claim 120, wherein the providing the moving communication cell comprises:

providing the moving communication cell from a moving base station.

122. (Previously Added) A method in accordance with claim 121, wherein the providing the moving communication cell comprises:

exchanging fixed port signals between the moving base station and at least one fixed port of a plurality of fixed ports disposed along the anticipated path of the mobile unit.

123. (Previously Added) A method in accordance with claim 122, wherein the providing the moving communication cell further comprises:

exchanging mobile unit signals between the moving base station and the mobile unit, the fixed port signals corresponding to the mobile unit signals.